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10/650,457	08/27/2003	Christopher H. Claudatos	14160-010001	7127

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EXAMINER

LAI, MICHAEL C

ART UNIT	PAPER NUMBER
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2457

NOTIFICATION DATE	DELIVERY MODE
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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/650,457	Applicant(s) CLAUDATOS ET AL.	
	Examiner MICHAEL C. LAI	Art Unit 2457	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/1/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 21-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to communication filed on 5/1/2009. Claims 1-8 and 21-28 have been examined.

Response to Amendment

2. The examiner has acknowledged the amended claims 1, 2, 21, 22, 25, cancelled claims 13-18, and 33-38. The objection to the specification has been corrected and withdrawn accordingly. The 112 first paragraph rejection to claims 21-28 has been corrected and withdrawn accordingly. The 101 rejection to claims 21-28 has been corrected and withdrawn accordingly. Claims 1-8 and 21-28 are pending.

Response to Arguments

3. Applicant's arguments filed 5/1/2009 have been fully considered but they are not persuasive.

In the remarks, the applicant argues in substance that: A) The Office stated that claims 5 and 25 recite the feature "if there is a matching packet policy specifying a second packet policy, processing the data packet based on the policy action fields of the second packet policy," but that it is unclear what will happen if there is no matching packet policy specifying a second packet policy. The applicant wishes to respectfully point out that lack of an alternative does not render a claim indefinite. B) Regarding the feature of policies being active during one or more specified date or time intervals, the Office relied on Kadambi 5:46-48. The quoted text from Kadambi indicates that address information - not packet policies - are active during a specified period as part of the address

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resolution logic in Kadambi. C) Assuming for argument's sake that a looked-up entry in an ARL/L3 tables 21 is a packet policy (which it is not), the fields of the table entry (see Kadambi 16:22-18:3) do not specify a filter (which the Office has analogized to the second packet policy of claim 5). In contrast, the request sent by the FIFO only initiates filter processing but does not specify a filter.

In response to A) since it is unclear what will happen if there is no matching packet policy specifying a second packet policy, the claim is incomplete, and as a result indefinite.

In response to B) first, the Office did not rely on Kadambi 5:46-48. The examiner cited Kadambi 18:55-56, time-to-live. Kadambi discloses TTL (time-to-live) field in the IP header. The data packets are routed according to packet routing rules (see Fig. 14, Rules Table 22). Since IP address is part of the packet information, Kadambi clearly teaches timed routing rules (timed packet policy).

In response to C) it appears Applicant did not fully consider the references in entirety as potentially teaching all or part of the claimed invention. Kadambi discloses that FFP 141 includes filter database 1410 containing filter masks therein, communicating with logic circuitry 1411 for determining packet types and applying appropriate filter masks. After the filter mask (first packet policy) is applied as noted above, the result of the application is applied to rules table 22 (second packet policy), for appropriate lookup and action (see FIG. 15 and col. 21, lines 25-31). Kadambi clearly teaches the second packet policy of claim 5.

Thus, in view of such, the rejection is sustained as follows:

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 5-8, 21-28, and 33-38 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5 and 25 recite the limitation “if there is a matching packet policy specifying a second packet policy, processing the data packet based on the policy action fields of the second packet policy.” It is unclear what will happen if there is no matching packet policy specifying a second packet policy.

Claims 6-8 and 26-28 are necessarily rejected as being dependent upon the rejection of claims 5 and 25.

Claims 21, 25 recite the limitation “A computer program product tangibly embodied in a **computer readable storage device**, the computer program product comprising instructions operable to cause **data processing equipment...**” It is unclear what **data processing equipment** the claim is referring to. It is also unclear whether the **computer readable storage device** is associated with the **data processing equipment** or not.

Claims 22-24 and 26-28 are necessarily rejected as being dependent upon the rejection of claims 21 and 25.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 1-8 and 21-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Kadambi et al. (US 6,154,446, hereinafter Kadambi).

Regarding claim 1, Kadambi discloses a method for processing data packets in a computer network, comprising:

configuring a multilayer switch to process data packets at wire-speed based on one or more user defined packet policies, each user defined packet policy specifying information for one or more of Layers 4 through 7 and being active during one or more specified date or time intervals [FIG. 2, col. 4 line 29 through col. 5 line 23, "CPU 52 can be used as necessary to program SOC 10 with rules which are appropriate to control packet processing. However, once SOC 10 is appropriately programmed or configured, SOC 10 operates, as much as possible, in a free running manner without communicating with CPU 52", configuring SOC 10 and rules tables 22a, 22b, 22c, 31a, 31b; col. 18, lines 55-56, time-to-live];

receiving a data packet at the multilayer switch, the data packet including information from one or more of Layers 2 through 7 of the OSI model [col. 16, lines 17-21, "packet 112 is received at input port 24 of EPIC 20... initiates lookup in ARL/L3 tables 21"];

determining if there is a match between the data packet and one or more of the packet policies, each packet policy authorizing matching data packets to use the computer network [col. 20 line 15 through col. 21 line 57, "The filters utilized by FFP 141 are defined by rules table 22. Rules table 22 is completely programmable by CPU 52, through CMIC 40... If the filter is designated as an exclusive filter, the filter will exclude

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all packets unless there is a match. In other words, the exclusive filter allows a packet to go through the forwarding process only if there is a filter match.”];

if there is a matching packet policy authorizing the data packet, routing the data packet using a Layer 2-3 switch [col. 20, lines 35-39, “the exclusive filter allows a packet to go through the forwarding process only if there is a filter match”]; and

if there is no matching packet policy authorizing the data packet, blocking the data packet [col. 20, lines 35-40, “the filter will exclude all packets unless there is a match”].

Regarding claim 2, Kadambi further discloses wherein determining if there is at least one matching packet policy further comprises: determining if there is a currently active timed matching policy [col. 18, lines 55-56, time-to-live].

Regarding claim 3, Kadambi further discloses wherein the user defined packet policies authorize data packets being transmitted or received by authorized users, applications, physical ports, application ports, IP addresses, or MAC addresses [col. 2, lines 25-35, “Bridges can build a table of forwarding rules based upon which MAC (media access controller) addresses exist on which ports of the bridge, and pass packets which are destined for an address which is located on an opposite side of the bridge”].

Regarding claim 4, Kadambi further discloses wherein blocking the data packet comprises: discarding the data packet [col. 19, lines 49-63, “If there is no match, the

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packet is discarded”], logging the data packet, or forwarding the data packet to a multilayer switch application for processing.

Regarding claim 5, Kadambi discloses a method for processing data packets in a computer network, comprising:

configuring a multilayer switch to process data packets at wire-speed based on one or more user defined packet policies, each user defined packet policy specifying information for one or more of Layers 4 through 7 [FIG. 2, col. 4 line 29 through col. 5 line 23, “CPU 52 can be used as necessary to program SOC 10 with rules which are appropriate to control packet processing. However, once SOC 10 is appropriately programmed or configured, SOC 10 operates, as much as possible, in a free running manner without communicating with CPU 52”, configuring SOC 10 and rules tables 22a, 22b, 22c, 31a, 31b];

receiving a data packet at the multilayer switch, the data packet including information from one or more of Layers 2 through 7 of the OSI model [col. 16, lines 17-21, “packet 112 is received at input port 24 of EPIC 20... initiates lookup in ARL/L3 tables 21”];

determining if there is a match between the data packet and one or more packet policies that specify a second packet policy to be applied to the matching data packets, the second packet policy having one or more policy action fields [FIG. 15 and col. 21, lines 25-31]; and

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if there is a matching packet policy specifying a second packet policy, processing the data packet based on the policy action fields of the second packet policy [col. 21, lines 25-31].

Regarding claim 6, Kadambi further discloses wherein the matching packet policy specifies the application of a preexisting second packet policy, and processing the data packet comprises: identifying the preexisting second packet policy specified by the matching packet policy [col. 20, lines 15-61, Rules Table 22]; and processing the data packet based on the policy action fields of the preexisting second packet policy [col. 20 line 62 through col. 21 line 18].

Regarding claim 7, Kadambi further discloses wherein the matching packet policy specifies the application of a dynamically created second packet policy, and processing the data packet comprises: creating the second packet policy specified by the matching packet policy [col. 16, lines 9-15]; and processing the data packet based on the policy action fields of the created second packet policy [col. 20 line 35 through col. 21 line 36].

Regarding claim 8, Kadambi further discloses wherein processing the data packet comprises: routing the data packet using a Layer 2-3 switch [col. 33 line 54 through col. 34 line 14].

Claims 21-28 are of the same scope as claims 1-8. They are rejected for the same reasons as for claims 1-8 respectively.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of the art disclosed by the references cited and the objection made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).

10. McCloghrie et al., US Patent Number 6,286,052 B1, has taught a method and apparatus for identifying network data traffic flows and for applying quality of service treatments to the flows.

11. Tzeng, US Patent Number 7,424,012 B2, has taught a linked network switch configuration.

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12. Moriconi et al., US Patent Number 6,941,472 B2, has taught policy rules including conditions including time of day.
13. Mikkonen, US 2004/0001475 A1, has taught using **time of day and/or date** for finding matching rule and consequently routing information for the data packet.

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL C. LAI whose telephone number is (571)270-3236. The examiner can normally be reached on M-F 8:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax

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phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C. Lai
24AUG2009

/ARIO ETIENNE/
Supervisory Patent Examiner, Art Unit 2457